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(54) Title: MATERIALS AND METHODS RELATING TO NEURONAL DEVELOPMENT

(57) Abstract: The invention relates to the induction of the neuronal fate in neural stem cells or neural progenitor cells. The inventors have found that a neuronal fate in a neural stem cell or neural progenitor cell can be induced by expressing *Nurr1* above basal levels within the cell. *Nurr1* is a transcription factor of the thyroid hormone/retinoic acid nuclear receptor superfamily. It is shown herein that the expression of *Nurr1* above basal levels in neural stem cells or neural progenitor cells increases the proportion of the cells which differentiate toward a neural fate. It has been found that in particular, dopaminergic neural stem cells or progenitor cells by a process including expression of *Nurr1* above basal levels in the cells and contact of the cells with one or more factors supplied by or derived from Type I astrocytes of the ventral mesencephalon.

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